

AMENDMENTS TO THE SPECIFICATION

Page 6, line 20:

DETAILED DESCRIPTION OF PREFERRED EMBODIMENTS OF THE INVENTION

Page 10, line 3 to line 8:

Figs. 6A and 6B show specific dimensions of each portion and transmission characteristics of the transmission line. The relative constant of the dielectric plate is 7.0, the radius r of the line center of the bend portion is 2.0 mm, as shown in Fig. 6A, the diameter of the through holes 4 is 0.1 mm, the pitch of the through holes 4 is 0.4 mm, the width of the protruding part 2 is 0.58 mm and it extends upward 0.60 mm above a 0.30 thick mm plate 1, with the center of the closest hole 4 being 0.15 mm away from its side wall, as and the dimensions of the other portions are the values shown in Fig. 6B, so that three lines of through holes 4 on each side, i.e., six lines in total, are formed.

Page 11, line 10 to line 13:

Referring to Figs. 9A and 9B ~~and Figs. 10A to 10D~~, reference number 1 indicates a dielectric substrate, 2 indicates a protruding portion, 3a indicates a bottom-surface electrode, 3b indicates a top-surface electrode, 4 indicate through holes, and in Figs. 10A to 10D, 101 and 110 indicate dielectric sheets, and 104 indicate perforated holes.

Page 15, line 24 to page 16, line 17:

On the top surface of the dielectric plate as viewed in Fig. 12, a voltage-controlled oscillator (VCO) is connected to a coplanar line 10. The coplanar line 10 is coupled to the transmission line indicated by G1. Between the transmission lines G1

and G2, an amplifier circuit (AMP) implemented by an FET is provided. Furthermore, at an end of the transmission line G3, a slot antenna is formed, so that a transmission signal is radiated from the slot antenna in the direction perpendicular to the dielectric plate. The adjacent portions of the transmission lines G2 and G5 constitute a directional coupler. A signal which is distributed by the directional coupler is coupled as a local signal to a coplanar line 12 which is connected to one of the diodes of a mixer circuit. Furthermore, a circulator is formed at the Y-branched center of the transmission lines G2, G3, and G4. The circulator is constructed of a resonator implemented by a disk-shaped ferrite plate and a permanent magnet applying a static magnetic field to the ferrite plate in the perpendicular direction, ~~which are not shown in Figs. 9A and 9B.~~ Via the circulator, a reception signal from the slot antenna is coupled to a coplanar line 14 which is connected to the other diode of the mixer circuit. The two diodes of the mixer circuit operate as a balanced mixer circuit, and the output thereof is fed to an external circuit via a balanced line 16 having matching passive components in the middle.